

Proficiency in the spelling of Dutch verbs at the end of primary school (grade 6) does not meet the standard of at least 80% correct spelling by at least 75% of the population. The goal of our study *WerkWoordWerk* is to find ways to improve these figures. The present study investigates which approach is most efficient in the final half year of primary school: checking via a shortened version of the full algorithm learned earlier, comparison with an easy to spell nonsense verb *smurfen*, or simply more training?

Goal at the end of primary education: 75% writes 80% of the verbs correctly.		
Year	Study by	% verbs written correctly
1983	Assink	56,5 %
1988	Zuidema	59 %
2008	Schools inspectorate	60 %
2014	Peters et al., this study	66 %

1901 Compulsory education act

The history of school education started with rule based learning.

The rules of verb spelling turned out to be too difficult to master.

1956 Analogy

Van der Velde 1956. Use analogy - write verb forms on the basis of exemplars.

1976 Introduction of algorithmic approach

Kooreman 1976. The hypothesis that children will profit from the use of an algorithmic approach. Children learn the verb spelling strategy in small decision steps.

1983 Algorithm is better

Assink 1983. Indeed: better results when children learn an algorithm than when they learn rules.

1988 Replication

Additionally: training in class leads to better results than individual training.

2012-16 WerkWoordWerk

Checklists as shortening strategies of the algorithm?
Analogy again?
Or simply more training?

Participants
286 children grade 6, 16 groups, 11 primary schools

- 140 checklists for the algorithm learned
- 105 analogy based on a transparently spelled verb
- 41 training with the data of the other conditions

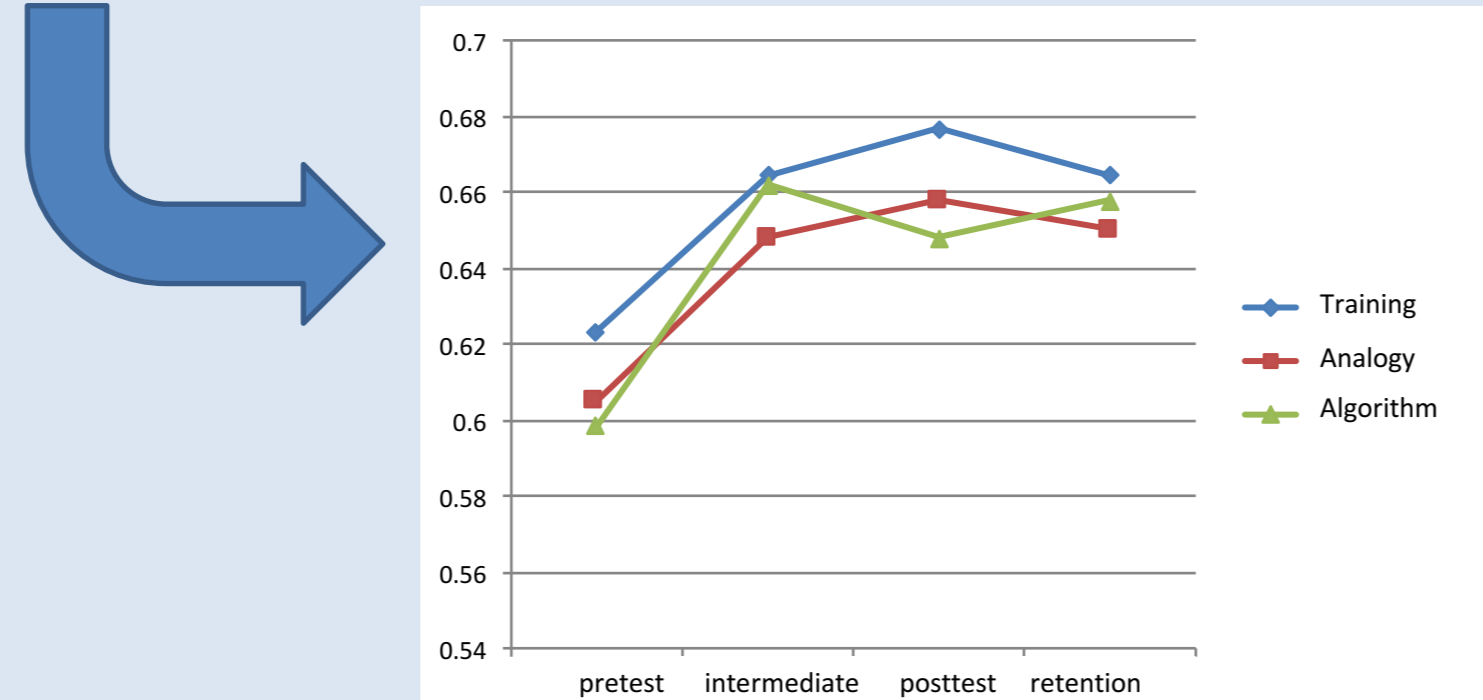
Analogy with the simple verb *smurfen*:
De smurf verbied/verbiedt.
De smurf *smurft*.
De smurf verbied/verbiedt.

Materials

- General reading, writing and spelling tests; dedicated verb spelling and grammar tests. A workbook with brush up training of the grammatical basics of verb spelling.
- Workbooks for the conditions checking and smurfing. The exercises of these are used in the training condition.

Design of the study
Pretest: August/September 2012
Brush up course: January 2013, 4 weeks
Intermediate test: February 2013
The three conditions: Feb – March 2013, 8 weeks
Posttest: April 2013
No intervention: April - June 2013, 6 weeks
Retention test: June 2013

Three different checklists for the algorithmic approach:



Results 1
All test results differ significantly from chance level.

Results 2
Only the results of the pretest differ significantly from the other test results.

Results 3
No effect of condition, $F(2,283) = 0.47, p > .5$

Conclusion & Discussion
No difference between the three conditions.
No progression in the final semester of primary school.
Is Dutch verb spelling too difficult for 11 and 12 year old children?
Or perhaps children's motivation is gone in view of the final months of primary education?

What next ...

- Incorporation of the information in the general tests that differentiate learners with a higher or lower level of language proficiency.
- Distinction of item types in the verb spelling test.
- Earlier intervention (two other studies, work in progress).

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